

Remarks:

Reconsideration of the application is respectfully requested.

Claims 1 - 14 are presently pending in the application. Claim 1 has been amended.

Note that the above-referenced Office Action, mailed July 23, 2004, lists only claims 1 - 12 as pending, and does not make any reference to or cite any art against claims 13 and 14, which were added in the previous response, filed April 21, 2004. It is respectfully requested that the Examiner clarify the status of claims 13 and 14 in the next action.

In paragraph 1 of the above-identified Office Action, claim 1 was rejected as allegedly indefinite under 35 U.S.C. § 112, second paragraph. Claim 1 has been amended to even further clarify that claim.

More specifically, claim 1 has been amended to recite that "the message" recited in the limitation added in the previous Response, is the claimed "new message" of line 5 of claim 1.

Additionally, it was pointed out in the Office Action, that "a subscriber" was recited in line 1 of the preamble of claim 1. Subsequently, line 6 made reference to "a subscriber", while line 7 of claim 1, recited "the subscriber". Since "a

"subscriber" was already set forth in the preamble of claim 1, it is believed that the proper way to subsequently refer to that subscriber, throughout the claims, is as "the subscriber". As such, line 6 of claim 1 has been amended to recite "the subscriber", as is recited in line 7 of the claim. It is accordingly believed that the claims meet the requirements of 35 U.S.C. § 112, second paragraph.

In paragraph 3 of the Office Action, claims 1 - 12 were rejected as allegedly being anticipated under 35 U.S.C. § 102(e) by U. S. Patent No. 6,333,973 to Smith et al ("SMITH"). As noted above, no art was cited against pending claims 13 and 14.

Applicants respectfully traverse the rejection made using the SMITH reference.

In an Office Action, dated May 23, 2002, the same SMITH reference was applied against Applicants' then pending claims. In a Supplemental Response, dated December 6, 2002, Applicants' submitted a § 1.131 declaration signed by both inventors, swearing behind the SMITH reference. A copy of the Invention Disclosure (*Erfindungsmeldung*), dated April 25, 1997, setting forth the reduction to practice of the claimed invention was enclosed as corroborating evidence. In the

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subsequent Office Action, a different reference (U. S. Patent No. 6,233,318 to Picard et al.) was cited against the claims. The Office Action stated that Applicants' arguments with respect to the claims were considered "but are moot in view of the new ground(s) of rejection".

Now the **SMITH** reference has been again cited against Applicants' claims. Applicants' make reference to the previously filed Section 131 Declaration, filed in the present case in the Supplemental Amendment of December 6, 2002.

The facts relating to the presently claimed invention, as they relate to the **SMITH** reference, are as follows. The effective date of the **SMITH** reference is **April 23, 1997**. Applicants' invention was conceived at least as early as **April 22, 1997**, prior to the effective date of the **SMITH** reference, and the inventors worked diligently towards the reduction to practice of the invention, leading to an invention disclosure drafted on **April 25, 1997**. Applicants' invention was reduced to practice no later than **April 25, 1997**. Applicants have enclosed a supplemental Declaration Under 37 C.F.R. § 1.131, signed by the inventor, Vincenzo Scotto Di Carlo, which set forth the above stated facts of prior conception and diligent reduction to practice of the presently claimed invention.

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Additionally enclosed, as corroborating evidence, is the Invention Disclosure (*Erfindungsmeldung*) dated as being received in Applicants' office on April 25, 1997, a copy of which was previously filed in the present case. Note that the six pages of Invention Disclosure description attached to the *Erfindungsmeldung* form, are dated as having been generated on April 24, 1997.

Further, **SMITH**'s patent publication date of December 25, 2001 is subsequent to applicant's U.S. filing date of March 30, 2000 for the instant application. Because **SMITH** is not a statutory bar and its effective date as a reference is after the date that the present invention was conceived prior to the effective date of the **SMITH** reference, and because the Inventors worked diligently towards the reduction to practice of the invention that occurred no later than April 25, 1997, as evidenced by the Rule 131 Declaration enclosed herewith, Applicants respectfully believes that the **SMITH** reference is unavailable as prior art. Therefore, Applicants respectfully submit that the Section 102(e) rejection in paragraph 3 of the Office Action is now moot and requests that the Examiner withdraw the rejection.

Absent such rejection, it is believed that the present claims 1 - 14 are in condition for allowance. In view of the

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foregoing, reconsideration and allowance of claims 1 - 14 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out. In the alternative, the entry of the amendment is requested, as it is believed to place the application in better condition for appeal, without requiring extension of the field of search.

Additionally, please consider the present as a petition for a two month extension of time, and please provide a two month extension of time, to and including, December 23, to respond to the present Office Action.

The extension fee for response within a period of two (2) months pursuant to Section 1.136(a) in the amount of \$450.00 in accordance with Section 1.17 is enclosed herewith.

Please provide any additional extensions of time that may be necessary and charge any other fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner and Greenberg, P.A., No. 12-1099.

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Respectfully submitted,



For Applicants

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KPS:cgm

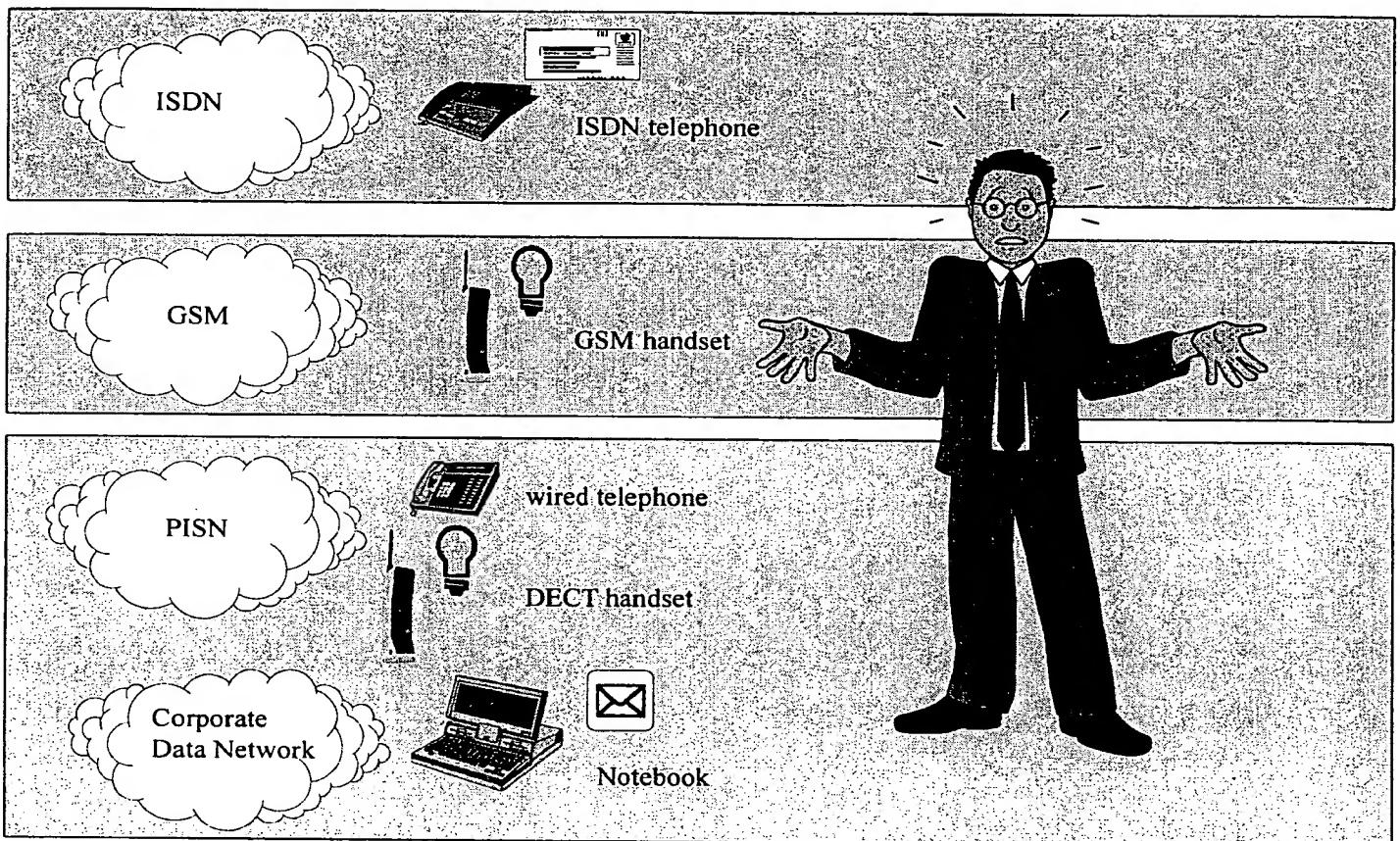
December 23, 2004

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## 1 What is the problem ?

In many networks as ISDN, Private networks (referred as PISN), Data networks etc., applications are available today, able to receive and store for an user messages of various form (voice, text, etc.). As soon as a message is received, it is immediately stored and the user is informed that a new message is ready to be delivered through an appropriate device (for example, PC, telephone, pager etc.). Therefore, „Message waiting indication“ (MWI) is forwarded to the user in some way (for example turning on a LED, activating a beep, showing a flashing icon etc.). The user is than supposed to access the application and get the message.

Please refer to Figure 1 to recognize through some examples the variety of devices, applications and networks that support some form of MWI for each messaging service.



**Figure 1 : Todays status**

The problem is that all applications are totally independent each other. As a consequence, user, in order to be promptly informed that a new message arrived for him, should always have available either the proper device, or at least a device by which the desired application can be remotely accessed. However, some devices cannot be taken along (for example home wired phone), while other, though portable, doesn't work out of the relevant environment (for example an handset connected to a Pbx doesn't work out of the coverage area of that Pbx or out of the Corporate Network).

Therefore, it may happen that important messages are stored by the network for the receiving user, but the user cannot be informed of it because not reacheable by MWI. Of course, the message, though important or urgent, is not delivered.

## 2 How it is solved today ?

The only possibility to solve the problem today is

- user „polls“ periodically each application which may have messages for him, or at least those that may have „urgent“ or important messages, if the application can be remotely accessed. Otherwise, the alternative is:

- user takes with him the required devices, or at least those that may deliver „urgent“ or important messages, if and when possible

Of course, this type of solution, for messages stored by „polled“ networks, is:

- not efficient, because urgent messages are in any case read with some delay‘
- costly, because each poll, made remotely, is usually subject to charges, regardless of the presence of new messages
- time wasting, because people spend time to poll „just in case“, without obtaining any useful information back

If user takes along the device, the above disadvantages disappear, but:

- not every device is portable
- taking along a lot of devices is not confortable

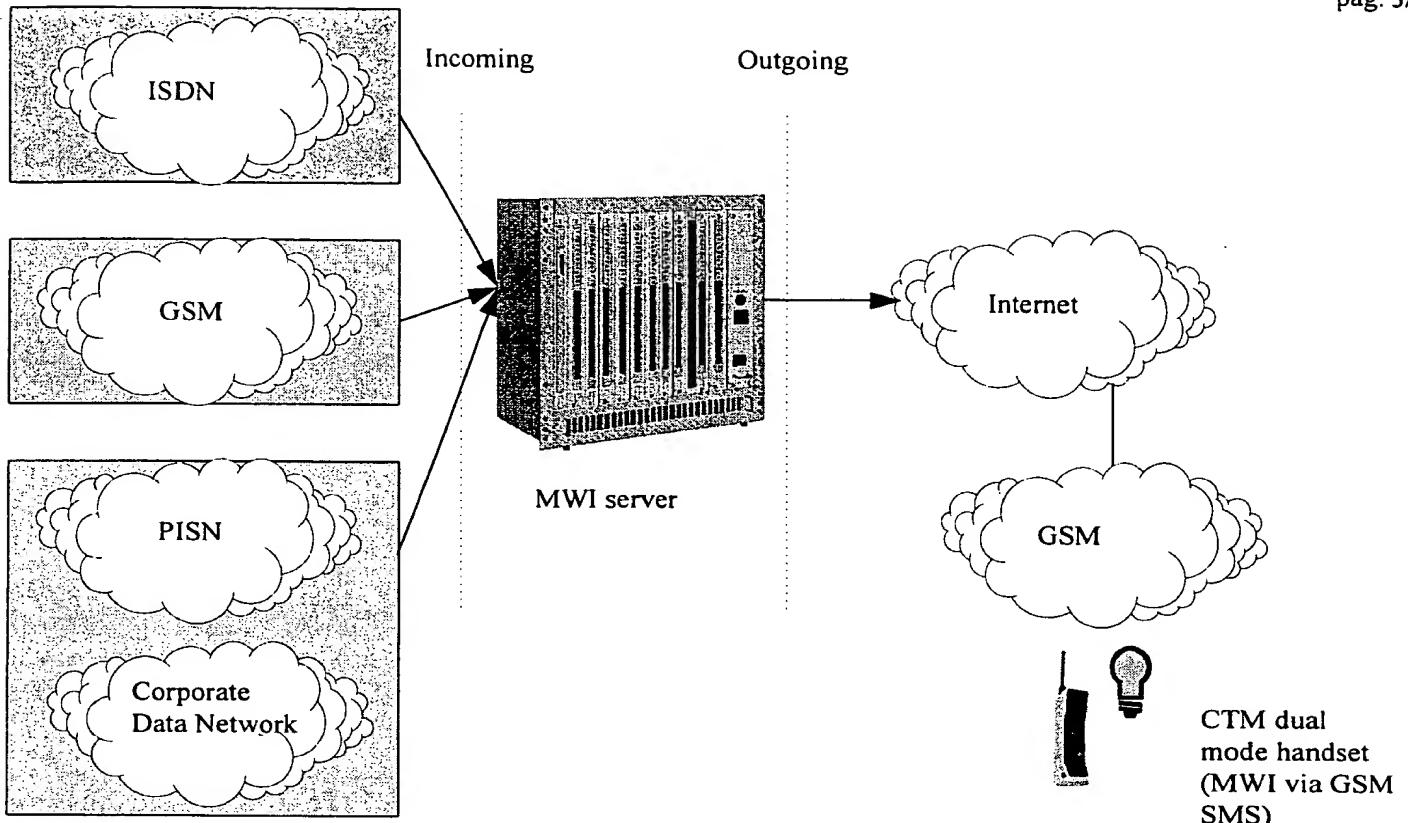
The biggest problem is that the applications supporting messaging services are not integrated each other, except for few functionalities, for example, the possibility to send a GSM Short Message via Internet.

### 3 Solution

#### 3.1 Principles

The described solution consists in interfacing each application with a centralized „MWI server“, which forwards (optionally selectively) MWI to one or more devices, normally portable (see Figure 2). In this sense, MWI server has an „incoming side“, on which it receives from a network the information that a message is stored for the user, and an „outgoing side“, on which it forwards MWI to the selected networks.

Ideally, the server could forward MWI to a single device, if it is able to be reached everywhere (or fairly everywhere) and it is easily portable, so that the user carries it always and comfortably with him. In the future, the CTM Phase 2 standards will satisfy this requirement, allowing users having dual mode handsets (DECT/GSM) to transparently roam among public, private and business environment. As GSM networks are part of the complete CTM network, MWI server is simply required to send a GSM Short Message to be sure that the user is informed, wherever he is. This solution is quite simple to implement for MWI server, but it can be actually used only when networks supporting CTM Phase 2 standards will become commercially available.



**Figure 2 : Long term solution**

### 3.2 Solution for todays networks

Todays networks don't support CTM standards. However, users can move today in a very wide area just having an GSM handset and a wireless phone at office, which we assume to be a DECT phone. An additional wired phone at office is connected to the same Pbx or Corporate Network of the wireless one. Normally, everyone has a phone at home, which we assume to be an ISDN phone. Finally, a data device (for example PC) is present certainly at office and often at home.

This means that the user is identified by:

1. a GSM number, to be reached in public areas
2. an office number (it could be assumed that the Corporate network hides the presence of two phones somehow sharing a single number), to be reached at office
3. an ISDN number, to be reached at home
4. one or more e-mail addresses. Solutions available in e-mail applications may automatically reroute messages and/or MWI among multiple addresses. For our purposes, just the case of a single e-mail address can be discussed

The applications that may deliver messages and the relevant required devices are listed in Table 1.

Application	Required device	Remarks
E-mail	PC or any data device	Many mailboxes, corresponding to different addresses, may be accessed through the same device. Notebooks can offer a good degree of mobility.
Voice mail (Office)	DECT Phone	Portable and fixed may share the same Voice Mail box. Limited mobility.
Voice Mail (Home)	ISDN phone	This device has no mobility.
Text Messages (GSM)	GSM phone	This is supported by Short Message Service (SMS) standardized in GSM. Normally, the MWI for GSM Voice Mail is implemented by means of GSM SMS itself, therefore doesn't need to be considered. Mobility is possible over a wide area.
Text Messages (DECT/Office)	DECT phone	This is supported by Short Message Service (SMS), under standardization in DECT application for Cordless Terminal Mobility (CTM). Wide mobility.

**Table 1**

The solution (see Figure 3) consists in connecting a MWI server on one side (incoming side) to each application capable of deliver messages to the user, and on the other (outgoing side) to the networks which are able to reach the user on a wide area (GSM, Pbx or Corporate Network, ISDN). The core function of MWI server consists in receiving on the incoming side from one of the networks the information that a new message is stored for the user, and forwarding MWI to all networks on the outgoing side.

Applications, may access MWI server on the incoming side via data networks (Corporate data network, GSM SMS), or directly, via appropriate interfaces over digital lines (ISDN, PISN). MWI server presents interworking functions to adapt to the different technological solutions and implementations of each application.

MWI server may internally support additional functions, as message filtering and MWI formatting (see Figure 4). Message filtering selects, according to criteria set up by the user or predefined, the messages that trigger the activation of MWI toward the networks connected on the outgoing side. Selected messages can be the high priority ones. Selection criteria can be the sender's identity (name or telephone number, for example) or some keywords in the message title, etc..

MWI formatting extracts from the informations received by MWI server only those that can or should be forwarded by MWI on the outgoing side. For example, only sender's identity and/or message title could be forwarded, depending on the capabilities of the network on the outgoing side.

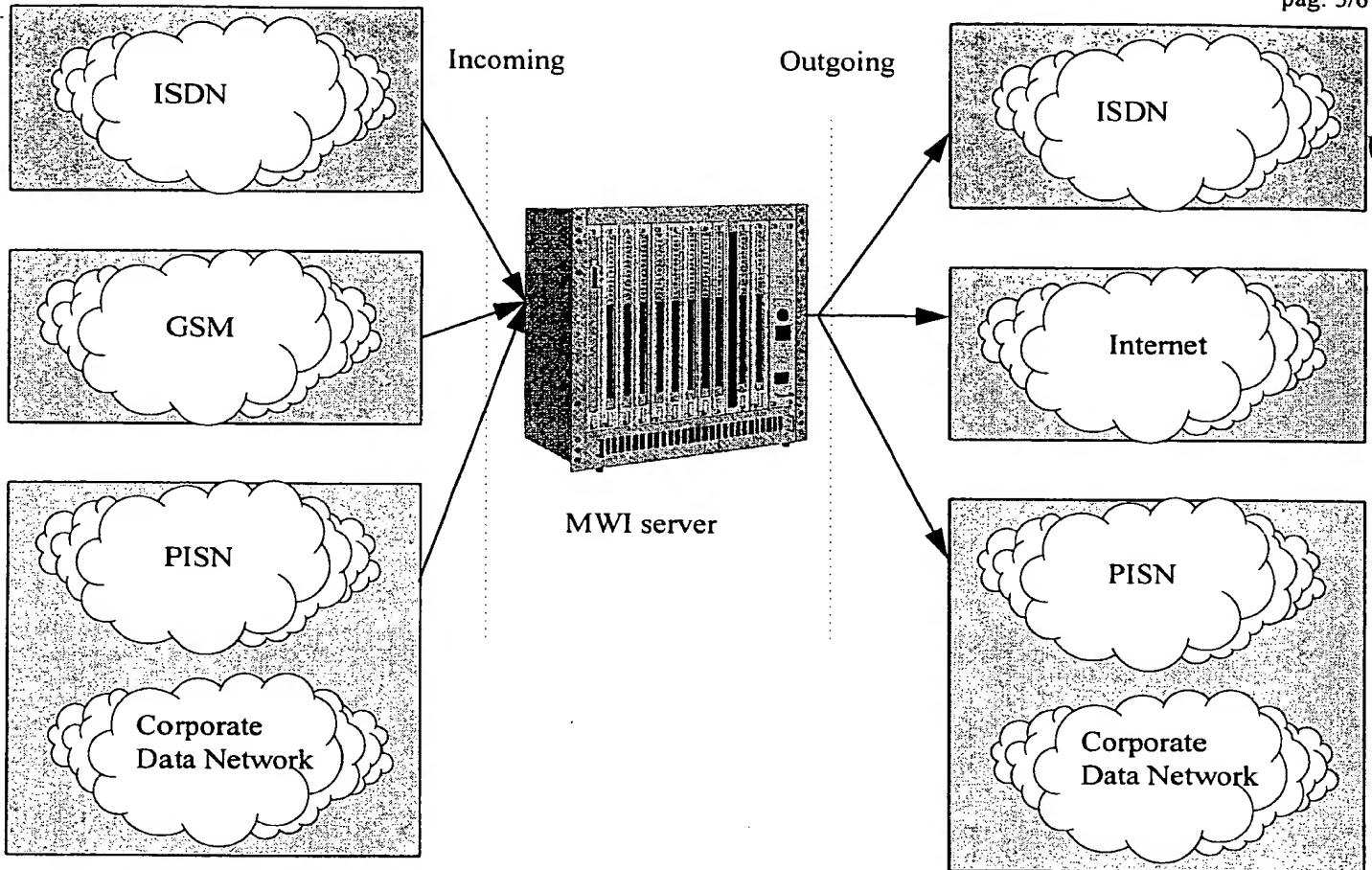
Finally, MWI server usually generates MWI on the outgoing side for all applications except for the one which signalled the presence of a new message. Networks supporting the relevant applications are accessed via an appropriate interworking function.

Depending on the outgoing interface, the method of activating MWI may differ.

For ISDN, a standard is available, which basically allows any endpoint, identified by an ISDN number, to activate MWI on a receiving user. It is possible to specify the number of messages waiting to be read and their type (voice, teletext etc.). MWI server is required to support an ISDN standard interface as interworking function.

For Private Networks, the CAP (CTM access profile) standard is available to trigger MWI on a CAP compliant DECT handset. This standard, strictly based on the ISDN one, has the same characteristics of the latter.

For GSM, MWI can be activated just sending a Short Message (SM) to the user's GSM number. Existing applications offer the possibility to send a SM via Internet. In this case, there is no need of a physical interface with GSM network, as a simple Internet access is sufficient.

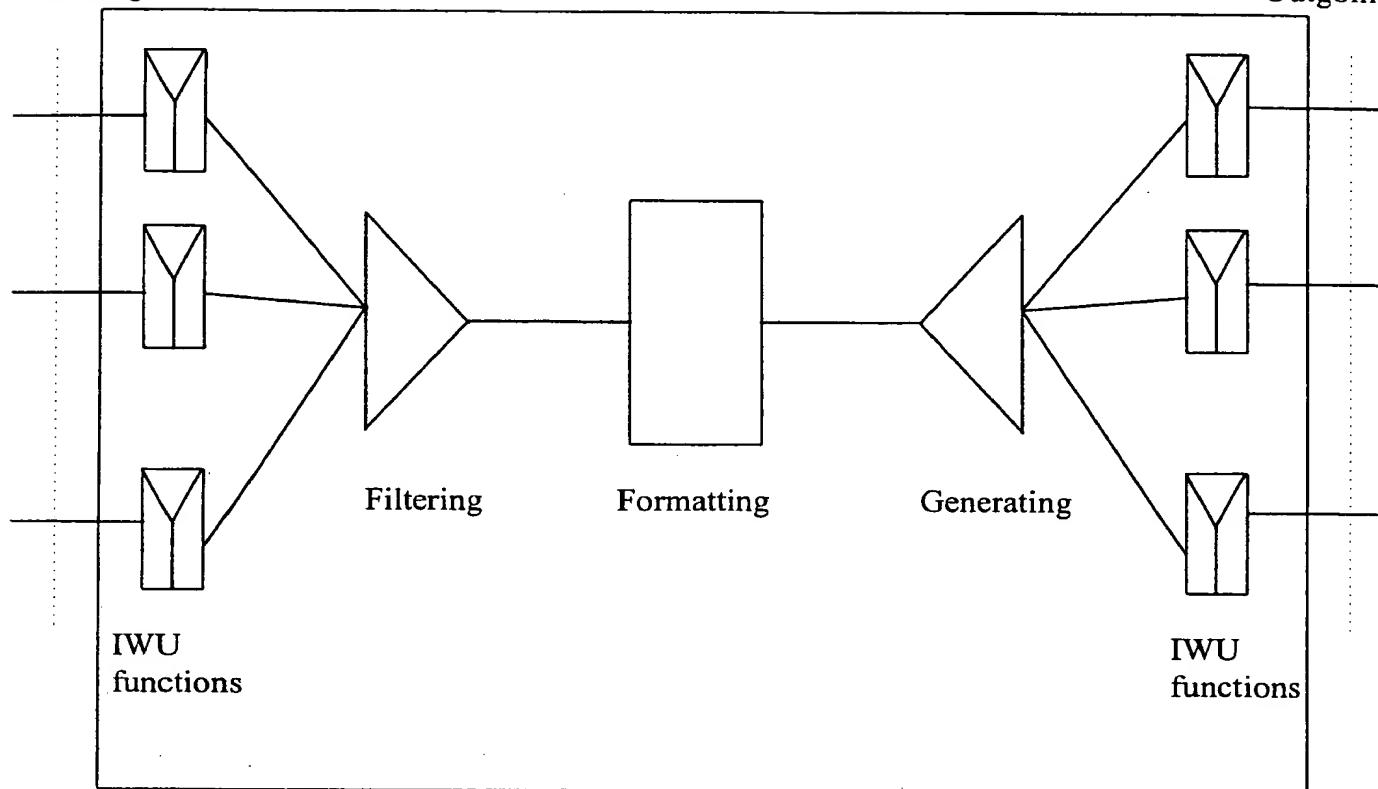


**Figure 3 : Solution for todays networks**

With this solution, users need to carry along a dual mode CAP telephone, able to receive GSM SMS and CAP MWI. CAP MWI informs the user under PISN or home DECT coverage, while GSM SMS quite obviously under GSM coverage. Text messages include in principle e-mail, since MWI server may map e-mail in one or more GSM SMS. Provision of GSM SMS access via PISN is currently under standardization as well. In addition, two Siemens patents have been already registered.

Incoming

Outgoing



MWI server

Figure 4 : MWI server internal functions

### 3.3 Notes

MWI server may operate in overlay with existing applications. This means that each application may be allowed to keep the existing mechanisms to signal MWI, and in addition it forwards the necessary informations to MWI server.

## 4 References

ISDN standard for MWI: ETS 300 745, ETS 300 751 etc.

GSM SMS standards

CAP (CTM Access Profile) DECT standard